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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,732	03/03/2004	Yen Hsi Lin	MR1957-856	2652

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ROSENBERG, KLEIN & LEE  
3458 ELLICOTT CENTER DRIVE-SUITE 101  
ELLICOTT CITY, MD 21043

EXAMINER
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NGUYEN, TUAN HOANG

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/790,732

Applicant(s)

LIN, YEN HSI

Examiner

Tuan H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Nassimi (US PUB. 2003/0211871).

Consider claim 1, Nassimi teaches a wireless earphone communicating with a mobile phone by wireless signals, the wireless earphone comprising: a communication unit receiving and emitting the wireless signals (page 2 [0025]); a rechargeable battery (page 2 [0025]); a feedback-type charging circuit providing a charging current for the rechargeable battery and feeding back charging states of the rechargeable battery (see fig. 3 page 3 [0035]); and a microprocessor controlling operations of the communicating unit and outputting a control signal

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for adjusting the charging current of the feedback-type charging circuit (see fig. 3 page 3 [0056]).

Consider claim 2, Nassimi further teaches the communication unit comprises: a microphone (page 2 [0025]); a speaker (page 2 [0025]); and a wireless receiving/transmitting module receiving signals from the microphone and transmitting signals wirelessly to a mobile phone, wherein wireless signals transmitted by the mobile phones are also received by the wireless receiving/transmitting module and output by the speaker (page 2 [0025]).

Consider claim 3, Nassimi further teaches the wireless receiving/transmitting module is a Bluetooth.TM. module (page 3 [0038]).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nassimi (US PUB. 2003/0211871) in view of Ryan (U.S PAT. 5,977,745).

Consider claim 4, Nassimi teaches a wireless earphone communicating with a mobile phone by wireless signals.

Nassimi does not explicitly show that the feedback-type charging circuit comprises: a charging current control circuit receiving an input direct current and the control signals, wherein the charging current control circuit also outputs the charging current and changes the charging current value according to the control signals; a first detecting circuit detecting the charging current of the charging current control circuit; and a second detecting circuit detecting the voltage value of the rechargeable battery; wherein the microprocessor detects the voltage value of the rechargeable battery by the second detecting circuit and the current value of the rechargeable battery by the first detecting circuit and the microprocessor hence changes the charging current and charges the rechargeable battery.

In the same field of endeavor, Ryan teaches the feedback-type charging circuit comprises: a charging current control circuit receiving an input direct current and the control signals, wherein the charging current control circuit also outputs the charging current and changes the charging current value according to the control signals (see fig. 3 col. 3 lines 41-49); a first detecting circuit detecting the charging current of the charging current control circuit (see fig. 3 col. 3 lines 41-49); and a second detecting circuit detecting the voltage value of the rechargeable battery (see fig. 3 col. 3 lines 41-49); wherein the microprocessor detects the voltage value of the rechargeable battery by the second detecting circuit and the current value of the rechargeable battery by the

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first detecting circuit and the microprocessor hence changes the charging current and charges the rechargeable battery (see fig. 3 col. 3 lines 41-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the feedback-type charging circuit comprises: a charging current control circuit receiving an input direct current and the control signals, wherein the charging current control circuit also outputs the charging current and changes the charging current value according to the control signals; a first detecting circuit detecting the charging current of the charging current control circuit; and a second detecting circuit detecting the voltage value of the rechargeable battery; wherein the microprocessor detects the voltage value of the rechargeable battery by the second detecting circuit and the current value of the rechargeable battery by the first detecting circuit and the microprocessor hence changes the charging current and charges the rechargeable battery, as taught by Ryan, in order to improve approaches are particularly well-suited for use with a portable media player.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nassimi (US PUB. 2003/0211871) in view of Ryan (U.S PAT. 5,977,745) as applied to claims 1 and 4 above, and further in view of Chiang et al. (U.S PAT. 5,233,281).

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Consider claim 6, Nassimi and Ryan, in combination, fails to teaches a voltage transforming circuit connected to the output terminal of the charging current control circuit.

However, Chiang teaches a voltage transforming circuit connected to the output terminal of the charging current control circuit (col. 3 lines 50-57).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Chiang into view of Nassimi and Ryan, in order to provide automatic discrimination for charging condition to cut off power source automatically in order to prevent overcharging which may damage battery.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nassimi (US PUB. 2003/0211871) in view of Robbin et al. (U.S PUB. 2003/0095096 hereinafter "Robbin").

Consider claim 4, Nassimi teaches a wireless earphone communicating with a mobile phone by wireless signals.

Nassimi does not explicitly show that a buzzer, wherein a tone of the buzzer is controlled by a buzzer control circuit connected between the microprocessor and the buzzer.

In the same field of endeavor, Robbin teaches a buzzer, wherein a tone of the buzzer is controlled by a buzzer control circuit connected between the microprocessor and the buzzer (page 6 [0060]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, a buzzer, wherein a tone of the buzzer is controlled by a buzzer control circuit connected between the microprocessor and the buzzer, as taught by Robbin, in order to provide approaches for users of computing devices to interact with graphical user interfaces.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shih (US PUB. 2004/0055811) in view of Ryan (U.S PAT. 5,977,745).

Consider claim 8, Shih teaches a charging circuit of a wireless earphone receiving control signals output from a microprocessor and charging a rechargeable battery, the charging circuit comprising: a charging current control circuit receiving an input direct current and the control signals, wherein the charging current control circuit also outputs the charging current and changes a charging current value according to the control signals (page 2 [0023]).

Shih does not explicitly show that a first detecting circuit detecting the charging current of the charging current control circuit; and a second detecting circuit detecting a voltage value of the rechargeable battery; wherein the microprocessor detects the voltage value of the rechargeable battery by the second detecting circuit and the current value of the rechargeable battery by the first detecting circuit, and the microprocessor changes the charging current for charging the rechargeable battery.



In the same field of endeavor, Ryan teaches a first detecting circuit detecting the charging current of the charging current control circuit (see fig. 3 col. 3 lines 41-49); and a second detecting circuit detecting a voltage value of the rechargeable battery (see fig. 3 col. 3 lines 41-49); wherein the microprocessor detects the voltage value of the rechargeable battery by the second detecting circuit and the current value of the rechargeable battery by the first detecting circuit, and the microprocessor changes the charging current for charging the rechargeable battery (see fig. 3 col. 3 lines 41-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, a first detecting circuit detecting the charging current of the charging current control circuit; and a second detecting circuit detecting a voltage value of the rechargeable battery; wherein the microprocessor detects the voltage value of the rechargeable battery by the second detecting circuit and the current value of the rechargeable battery by the first detecting circuit, and the microprocessor changes the charging current for charging the rechargeable battery, as taught by Ryan, in order to improve approaches are particularly well-suited for use with a portable media player.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shih (US PUB. 2004/0055811) in view of Ryan (U.S PAT. 5,977,745) as applied to claim 8 above, and further in view of Chiang et al. (U.S PAT. 5,233,281).

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Consider claim 10, Shih and Ryan, in combination, fails to teaches a voltage transforming circuit connected to the output terminal of the charging current control circuit.

However, Chiang teaches a voltage transforming circuit connected to the output terminal of the charging current control circuit (col. 3 lines 50-57).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Chiang into view of Nassimi and Ryan, in order to provide automatic discrimination for charging condition to cut off power source automatically in order to prevent overcharging which may damage battery.

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shih (US PUB. 2004/0055811) in view of Nassimi (US PUB. 2003/0211871).

Consider claim 11, Shih teaches a method for charging a wireless earphone, the wireless earphone having a microprocessor, a feedback-type charging circuit and a charging circuit set therein, wherein the microprocessor controls the feedback-type charging circuit to charge a rechargeable battery, the method having steps as follows: detecting a voltage level of the rechargeable battery with the feedback-type charging circuit (page 2 [0023]).

Shih does not explicitly show that comparing a difference between the voltage level of the rechargeable battery and a preset value by the

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microprocessor; and adjusting a charging current of the feedback-type charging circuit by the microprocessor.

In the same field of endeavor, Nassimi teaches comparing a difference between the voltage level of the rechargeable battery and a preset value by the microprocessor; and adjusting a charging current of the feedback-type charging circuit by the microprocessor (see fig. 3 col. 3 lines 41-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, comparing a difference between the voltage level of the rechargeable battery and a preset value by the microprocessor; and adjusting a charging current of the feedback-type charging circuit by the microprocessor, as taught by Nassimi, in order to provide a wireless headset power control device capable of controlling current flow to at least one member of the group.

Consider claim 12, Nassimi further teaches a step of detecting the charging current for the microprocessor by the feedback-type charging circuit (page 5 [0065]).

### ***Allowable Subject Matter***

11. Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

12. Any response to this action should be mailed to:

Mail Stop\_\_\_\_\_ (Explanation, e.g., Amendment or After-final,  
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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

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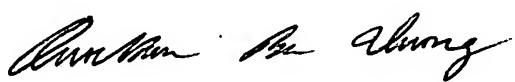
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen  
Examiner  
Art Unit 2618

 8/21/06  
QUOCHIEN B. VUONG  
PRIMARY EXAMINER